

## REMARKS

Claims 1-3 are pending. Claim 1 is amended. Claims 1-3 remain in the Application. Reconsideration of the pending claims is respectfully requested in view of the above amendments and the following remarks.

### **I. Claims Rejected Under 35 U.S.C. § 103(a)**

A. Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,826,372 issued to Givchchi ("Givchchi") in view of U.S. Patent No. 4,509,050 issued to Amoroso, Jr. et al. ("Amoroso"). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the relied upon references must teach or suggest every limitation of the claim such that the invention as a whole would have been obvious at the time the invention was made to one skilled in the art.

Claim 1 recites the elements of:

“a voltage controller for controlling said reference voltage to said differential comparator on the basis of a differential voltage between said threshold voltage from said low pass filter and a predetermined voltage corresponding to a predetermined minimum bit error rate” (emphasis added).

Applicants submit that Givchchi in view of Amoroso does not teach or suggest at least these elements.

Givchchi discloses a dynamic threshold setting for an optically amplified receiver. The receiver includes a set point adjustment circuit 48 (Figure 4), which is characterized by the Examiner as the claimed voltage controller. Givchchi discloses that the set point adjustment circuit 48 determines a set point based on the output of a forward error correction circuit (FEC) to minimize an overall bit error rate. The output of the FEC is an error-corrected data stream and an indication of the bit error rate in the output data stream (col. 5, lines 3-8).

Givchchi does not disclose a voltage controller using a threshold voltage of a low pass filter in the determination of the reference voltage. Rather, the set point adjustment circuit 48 uses the information in the output data stream, which is different and more complex than the threshold voltage of a low pass filter.

Amoroso does not cure the deficiencies. The Examiner relies on Amoroso for disclosing “a low pass filter....for supplying the resulting voltage as said threshold voltage to said optical

receiver.” Amoroso discloses a low pass filter that supplies a resulting voltage to an optical receiver. However, Amoroso does not disclose that the low pass filter also supplies a threshold voltage to the set point adjustment circuit 48. Thus, the cited references do not teach or suggest the claimed relationship between the low pass filter and the voltage controller, namely, “a voltage controller that controls the reference voltage on the basis of the threshold voltage from a low pass filter.” For the foregoing reasons, Claim 1 and its dependent Claim 2 are non-obvious over the cited references.

B. Claim 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,826,372 issued to Givehchi (“Givehchi”) in view of U.S. Patent No. 4,509,050 issued to Amoroso, Jr. et al. (“Amoroso”) and in further view of U.S. Publication No. 2005/0082503 issued to Patterson et al. (“Patterson”). Applicants respectfully traverse the rejection.

Claim 3 depends from Claim 1 and incorporates the limitations thereof. Thus, for at least the reasons mentioned above in regard to Claim 1, Givehchi in view of Amoroso does not teach or suggest each of the elements of Claim 3.

Patterson does not cure the deficiencies of Givehchi and Amoroso. Patterson is relied on for disclosing the control operation performed based on the input voltage level. However, Patterson does not disclose a voltage controller that controls the reference voltage on the basis of the threshold voltage from a low pass filter. For the foregoing reasons, Claim 3 is non-obvious over the cited references.

Accordingly, reconsideration and withdrawal of the § 103 rejection of Claims 1-3 are requested.

**CONCLUSION**

In view of the foregoing, it is believed that all claims are now in condition for allowance and such action is earnestly solicited at the earliest possible date. If there are any additional fees due in connection with the filing of this response, please charge those fees to our Deposit Account No. 02-2666.

Respectfully submitted,

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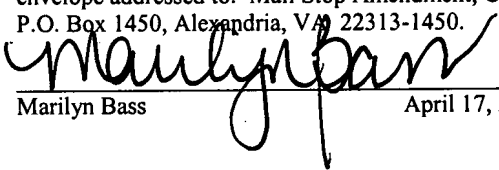
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April 17, 2007